

NETWORK-BASED PHOTOMASK DATA ENTRY INTERFACE & INSTRUCTION GENERATOR FOR MANUFACTURING PHOTOMASKS

Atty Dkt: 064441.0285 Inventors: Jeffry S. Schepp et al. Filing Date: 9/8/2003 Sheets: 2 of 12

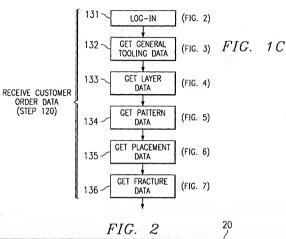


	FIG. 2
Main Menu Get a Quote/Account Please choose from the menu of	Account Mask Order Info Feedbock Help Logout choices below.
	Existing Customers
Choose this link if you are a new customer ond do not have	Enter your user name ond possword, choose a tosk, and click the "Go" button. User Name:
on occount and password yet. It ollows you to request o new quote, ond/or request an Order Form account.	Password: I want to: Create a New Order 22
All transactions are protected with SS available on the web.	Go! SL, the strongest browser encryption technology

30a	Main Menu Get a Account Mask Order Info Feedback Help Logout
	Please create your new order by completing as thoroughly as possible the following fields, then pressing the "Save and Forward" button to progress to Layer Information, the next step of the Mask Order Wizard. To get help for any field, hold your mouse cursor over that field's help
	icon (P).
30~	Other Methods For Working With Orders
	Reload an In-
	progress
1	neiodd ,
	Create New Order Based
	On Old: Copy to create new order
1	
1	← Create And Back Create And Stay
	Create And Forward → 33
	Create And Forward → 33 / Customer Information Quality Control
	Customer Information Quality Control
	Customer Information Quality Control Customer: Defect Criteria: D
32 {	Customer Information Customer: Quality Control Defect Criteria: 34
32 {	Customer Information Customer: Defect Criteria: 34 Contact Name:
32 {	Customer Information Customer: Fab: Contact Name: Phone: Quality Control Defect Criteria: 34 Documentation
32 {	Customer Information Customer: Fab: Contact Name: Phone: Phone: Plot Size: Quality Control Defect Criteria: V V V Plot Size: V V V
32 {	Customer Information Customer: Fab: Contact Name: Phone: Quality Control Defect Criteria: 34 Documentation
	Customer Information Customer: Fab: Contact Name: Phone: Phone: Plot Size: Quality Control Defect Criteria: V V V Plot Size: V V V

TO FIG. 3B FIG. 3A

NETWORK-BASED PHOTOMASK DATA ENTRY
INTERFACE & INSTRUCTION GENERATOR FOR
MANUPACTURING PHOTOMASKS
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FIG.~3B FROM FIG. 3A

	Required Order Information Pellicles
	This information is required immediatly in order to accurately Chrome-side? No 🔻
	generate the layer & pattern information screens. Glass-side? No P
35 {	Device:
	Other:
	Number of Unique Stepper Model:
	Patterns Chrome-side
	Part Number: P
	Tooling and Materials Glass-side Part Number:
	Product V
	Olher:
37	Glass Type: (1) Glass Size
	Thickness: Compacts
	Coating: Compact Part Number:
	Reflectivity:
	Create And Back Create And Stay
30	Create And Forward → 38
	$\begin{picture}(100,0) \put(0,0){\line(1,0){100}} \put(0,0){\line(1,0){10$

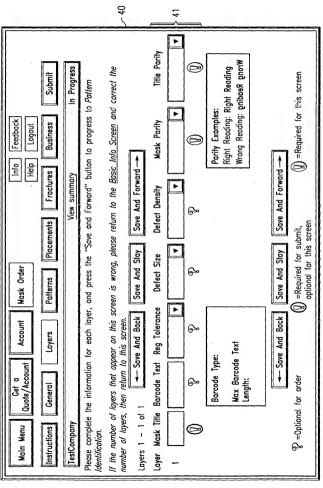


FIG. 4

Main Menu Get c Quote/Acc	Mack Order	Feedback Logout Submit
TestCompany	View summary	In Progress
"Save and Forward" but If the number of pattern	primation for each distinct pattern, and pre ton to progress to Pattern Placement. Ins or layer information is wrong, please re I correct the number of distinct patterns, in	eturn to the
→ Save	e And Back Save And Stay	
Potterns 1 - 1 of 1 Layers 1 - 1 of 1	Save And Forward →	
Pattern Pattern Name:	▼ (1) Fracture Required?	ॻ ଃ
Layer Number of Addi Layer Placements Un 0ut 1 Patent application	nits Final CD Tolerance CD	Digitized Data Tone
→ Save	e And Back Save And Stay	
	Save And Forward →	
P =Optional for order	=Required for submit, optional for this screen	d for this
	FIG. 5	

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Info Feedback Main Menu Account Mask Order Ouote/Account Help Logout Instructions General Layers Patterns Placements Fractures Business Submit TestCompany View summary in Progress Please fill in the X and Y coordinates (in microns from the center of the mask, where the center is defined as 0,0) for every placement in each layer, and press the "Save and Forward" button to progress to Fracture Information. If the number of placements for any layer on this screen is wrong, please return to the Layer Info Screen and change the number of placements, then return to this screen -Save And Back Save And Stay Save And Forward --Lovers 1 - 1 of 1 Layer Pattern Placements (Array to-columns) 1 Patent Application Prime-1 Placement 1 -Save And Back Save And Stay Save And Forward --Field Help X-values and Y-values are in microns from the center of the mask (where the center is defined as 0,0) and thus can be positive or negative. X- and Y-values for all placements must be completed before the order can be submitted, but can be left blank for the time being if necessary. \mathfrak{P} =Optional for order =Required for submit, (1)=Required for this optional for this screen screen

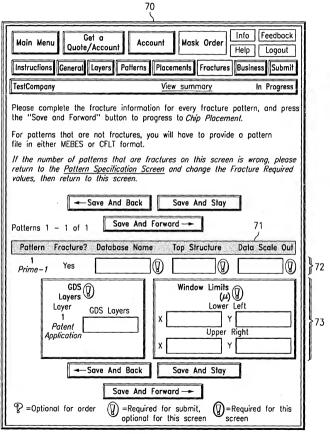


FIG. 7

NETWORK-BASED PHOTOMASK DATA ENTRY INTERFACE & INSTRUCTION GENERATOR FOR MANUFACTURING PHOTOMASKS

MANUFACTURING PHOTOMASKS
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FIG. 8

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Main Menu Get a Quote/Account	Account	ik Order Info Feedback Help Logout
Instructions General Layers Patte	rns Placements	Fractures Business Submit
TestCompany	View	summary In Progress
Please complete the business info "Save and Forward" button to pro		
→ Save And Back Save	And Stay	Save And Forward
Billing Information PO Number:	Shipping I billing)	nformation (same as
Number: U	Street Address	:
? ?	City:	8
City: (1) State: (2)	State:	
Country:	Country:	Q
Postal (Postal Code:	
Contact (Contact Name	\$\big \$\big \$\big \$
Phone:	Phone:	<u> </u>
Fax:	Fax:	<u> </u>
Email:	E-mail:	
		ler Information
II.	Expected Delivery:	▼ %
		A
	Comments/ Instructions:	7
\mathscr{P} =Optional for order $(\overline{\mathbb{Q}})$ =Re	And Stay	
opti	onal for this so	reen screen

NETWORK-BASED PHOTOMASK DATA ENTRY INTERFACE & INSTRUCTION GENERATOR FOR MANUFACTURING PHOTOMASKS Atty Dkt: 064441.0285 Inventors: Jeffry S. Schepp et al. Filing Date; 98/2003 Sheets: 10 of 12

FIG. 9

Info Feedback Get a Main Menu Account Mask Order Quote/Account Layers Patterns Placements Fractures Business Submit Instructions TestCompany RR View summory Validated Congratulations! Your order has been validated to contain all necessary information. Submit the order Click the button at the bottom of the screen to transmit the order information. You may then FTP the data files for the order. You must click the button to submit the order. Once you click the button, you will not be able to change any of the order information using the Order Form. Instead, you will have to talk to a customer service representative to change any order information. FINALIZE ORDER AND SUBMIT

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7IG. 10A

0.150 um 1.0 um 0 def/sq.in Wrong Reading Wrong Reading

KDKDKDK HSHSHSH

SYSTEM TEST 1
SYSTEM TEST 2

0.250 um 0.75 um 1 def/sq.in Right Reading

	Soles Billing information: Soles Soles Conformation: Soles Soles Conformation: Soles	Shipping information:	Manufacturer-specific Information:	ļ	Barcode Text Registration Defect Defect	me Barcode Text Registration Defect Defect Mask Parity Title Parity
E S				Mask Name Barcod	_	

TO FIG. 10B

NA

_ <u> </u>	Distinct Potterns	terns										===
	# Pattern Name	Address Final Units CD Out Size	Final CD Size	Final CD Tolerance Digitized	CD Digitized	Digitized Data Tone	Digitized Fracture Data Database Tone Name	Top GDS Scale W	GDS Layers	Data Scale Out	Window Limits	$\left\ FI \right\ $
	1 Prime- 1-1	0	-	0	Yes	Dark	JEFF.GDS	MAIN	1,3,5,7	-	(-12000, -15000) (12000, 15000)	
	2 Scribe- 2-2	0	-	0	No	Clear	JEFF.GDS	ТОР	2,4,6,8	-	(-10000, -9000) (10000, 9000)	
	over #	Placement of Patterns on Layers	s on L	ayers Pattern	×	>						

-	SYSTEM TEST 1			
			14000	900
		Scribe-2-2		
			16000 100	100
2	SYSTEM TEST 2			
	-	Scribe-2-2		1